UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,010	03/30/2004	Hyun-kwon Chung	1793.1239	2787

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2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/812,010	CHUNG ET AL.
	Examiner	Art Unit
	Girumsew Wendmagegn	2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 March 2004</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

       1.☒ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>See Continuation Sheet</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim1-5 and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim1, 3-6 and 16 of copending Application No. 10811976. Although the conflicting claims are not identical, they are not patentably distinct from each other because recording and producing apparatus of copending application is broader and can record the content on the storage medium as recited in the instant application.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim1-25 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim1, 13 recites an information storage medium comprising data and information used by the apparatus, and it is a nonfunctional descriptive material and it is non-statutory. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement.

Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus

statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim2-12 and 14-25 also rejected because of the dependency on rejected calim1 and 3.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim1-25 is   rejected under 35 U.S.C. 102(b) as being anticipated by Chung et al (EP 1267352).

Regarding claim1, Chung et al (hereinafter Chung) anticipates an information storage medium for use with a recording and/or reproducing apparatus having an ENAV buffer, the medium comprising: an ENAV file containing ENAV data (see page5 paragraph 0038; Fig. 4A and 4B); and ENAV buffer configuration information for use by

the apparatus in allocating at least a portion of the ENAV buffer in which the ENAV file

is to be loaded to be an updateable markup area (see page5 paragraph 0039).

Regarding claim2, Chung anticipates the information storage medium of claim 1,

further comprising: a plurality of ENAV files including the ENAV file, and a loading

information file including the ENAV buffer configuration information and which includes

a name and a location information of a predetermined one of the plurality of ENAV files

to be read by the apparatus in advance of the remaining ones of the plurality of ENAV

files and which is used by the apparatus to determine an order for buffering the plurality

of ENAV files into the ENAV buffer (see page5 paragraph 0039-0040).

Regarding claim3, Chung anticipates the information storage medium of claim 1,

further comprising a loading information file having a memory element including the

ENAV buffer configuration information wherein the memory element is used by the

apparatus to distinguish whether the ENAV file is one of an updateable ENAV file to be

loaded in the updateable markup area and another type of ENAV file which is to be

loaded in another area of the ENAV buffer other than the updateable markup area (see

page5 paragraph 0039-0040; Figure6).

Regarding claim4, Chung anticipates the information storage medium of claim 1,

further comprising a loading information file having a memory element having an

attribute, wherein: the attribute of the memory element comprises as the ENAV buffer

configuration information a memory name and a size of the ENAV file, and the memory

name and size are used by the apparatus to distinguish whether the ENAV file is to be

loaded in the updateable markup area corresponding to the memory name and another

type of ENAV file which is to be loaded in another area of the ENAV buffer other than

the updateable markup area which does not correspond to the memory name (see

page5 paragraph 0038-page6 paragraph 43).

    Regarding claim5, Chung anticipates the information storage medium of claim 1,

further comprising: a loading information file including the ENAV buffer configuration file,

a startup file linked to the loading information file, a directory including the loading

information file and the ENAV file, wherein, in order to read the ENAV buffer

configuration information in the loading information file, the apparatus reads the startup

file included in the directory to be linked to the loading information file (see page6

paragraph 0050 ; figure 4A and 4B).

    Regarding claim6, Chung anticipates the information storage medium of claim 1,

further comprising an AV file containing AV data, wherein the ENAV file is a file used by

the apparatus for reproducing the AV file with the buffered ENAV file in an interactive

mode (see page5 paragraph 0036).

    Regarding claim7, Chung anticipates the information storage medium of claim 6,

wherein the AV file is created according to a DVD-Video format, and the ENAV file

includes a markup document created with a markup language and which is interpreted

by the apparatus for reproducing the AV file with the ENAV file in the interactive mode

(see page5 paragraph 0036; figure4).

Regarding claim8, Chung anticipates the information storage medium of claim 6,

further comprising: an AV directory including the AV file, and an ENAV directory other

than the AV directory and which includes the ENAV file and a file containing the ENAV

buffer configuration information (see figure4 DVD_VS and DVD_ENAV).

Regarding claim9, Chung anticipates the information storage medium of claim 1,

wherein the ENAV buffer configuration information includes location information used by

the apparatus for loading another ENAV file from another information storage medium

(see page6 paragraph 0042).

Regarding claim10, Chung anticipates the information storage medium of claim9,

wherein the location information comprises a website at which another information .

storage medium is accessible from the apparatus (see page6 paragraph 0043).

Regarding claim11, Chung anticipates the information storage medium of claim

3, wherein: the memory element indicates a location of another ENAV file as being on

another storage medium other than the information storage medium from which the

another ENAV data is to be read by the apparatus, and a location of the ENAV file as

being on the information storage medium from which the ENAV data is to be read by the

apparatus, and using the memory element, the apparatus: loads one of the ENAV files

determined to be an updateable markup file to be buffered into the allocated updateable

markup area of the ENAV buffer, and loads the other one of the ENAV files determined

not to be an updateable markup file into another portion of the ENAV buffer other than

the updateable markup area and which is not allocated for the updateable markup file

(see page5 paragraph 0038-page6 paragraph 43).

Regarding claim12, Chung anticipates the information storage medium of claim

of claim 11, wherein the another storage medium comprises a server connected to the

ENAV buffer (see page6 paragraph 0043).

Regarding claim13, Chung anticipates an information storage medium for use

with a recording and/or reproducing apparatus in an interactive mode and which

includes a buffer, the medium comprising: first data to be reproduced by the apparatus

with an interactive file in the interactive mode (see figure4 DVD_ENAV) ; and allocation

information used by the apparatus to allocate a portion of the buffer to be reserved for

an interactive type of the interactive file prior to the interactive file being loaded (see

page5 paragraph 0038-0039).

Regarding claim14, Chung anticipates the information storage medium of claim

13, further comprising identification information which is detected by the apparatus to

determine the interactive file to be read and which is used by the apparatus to

distinguish between the updateable type of the interactive file which is to be buffered in the allocated portion and another type of the interactive file to be buffered in another area of the buffer (see page5 paragraph 0038-page6 paragraph 43).

Regarding claim15, Chung anticipates the information storage medium of claim 13, wherein the allocation information comprises an attribute including a name of the allocated portion and a pre-selected size, and the apparatus allocates the size of the allocated area for the interactive file to be reproduced if the interactive file is associated with the name (see page5 paragraph 0038-0040).

Regarding claim16, Chung anticipates the information storage medium of claim 13, wherein the allocation information indicates a size of the allocated portion (see page5 paragraph0039).

Regarding claim17, Chung anticipates the information storage medium of claim 13, further comprising location information which is used by the apparatus to locate the interactive file to be reproduced, and the apparatus uses the read allocation information to detect from the located interactive file a size of the buffer to reserve as the allocated portion (see page5 paragraph0039).

Regarding claim18, Chung anticipates the information storage medium of claim 17, wherein the size of the allocated portion is detected by the apparatus from another

information storage medium referenced by the location information see (page6

paragraph 0042-0043).

Regarding claim19, Chung anticipates the information storage medium of claim

18, wherein another information storage medium is on a server external to the

apparatus (see page6 paragraph 0043).

Regarding claim20, Chung anticipates the information storage medium of claim

13, further comprising order information indicating an order of a plurality of interactive

files including the interactive file to be reproduced, and the apparatus buffers the

interactive file in the buffer using the order (see figure13 and page4 line52-53).

Regarding claim21, Chung anticipates the information storage medium of claim

13, further comprising location information of the interactive file to be reproduced and

which the apparatus uses to locate and distinguish between a location on one of the

information storage medium and on another storage medium other than the storage

medium, and buffer information for the interactive file to be reproduced and which the

apparatus uses to distinguish whether the interactive file to is be buffered in one of the

allocated portion of the buffer and another portion of the buffer not allocated for the

updateable interactive file (see page5 paragraph 0038-page6 paragraph 43).

Regarding claim22, Chung anticipates the information storage medium of claim 13, wherein: the first data includes an image, and the apparatus interprets the interactive file to display the image from the first data in a first portion of a display and to display the interactive file as an interactive display in a second portion of the display other than the first portion (see figure3 AV screen and Markup language document screen).

Regarding claim23, Chung anticipates the information storage medium of claim 22, wherein the first data includes audio data used by the apparatus to be reproduced through an audio output as the image is reproduced in the interactive mode (see page6 paragraph 0053).

Regarding claim24, Chung anticipates the information storage medium of claim 22, wherein the first data includes a video comprising the image 9see page5 paragraph 0038).

Regarding claim25, Chung anticipates the information storage medium of claim 13, wherein the first data includes audio data to be reproduced through an audio output as the interactive file is reproduced (see page6 paragraph 0053).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kanazawa et al (US 6,586,870)
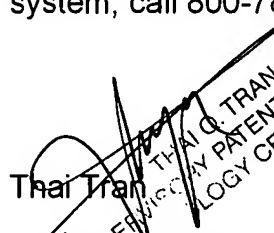
Chung et al (US 2003/0049017)

Ballard et al (US 6,044,439)

Kelly et al (US 6,047,292)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Girumsew Wendmagegn whose telephone number is 571-270-1118. The examiner can normally be reached on 7:30-5:00, M-F, alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thai Tran   Girumsew Wendmagegn

Supervisory Patent Examiner

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :9/30/04;8/11/05;5,12,04;3/30/04.